

Safety Evaluation Number¹: SE-W375-99-00017 Revision No: 0

ABCN Number: ABCN-W375-99-00063

Safety Evaluation Subject: Redefinition of Documentation of the Control Strategy Development Process

PART I: DESCRIPTION OF THE PROPOSED REVISION, BACKGROUND, AND SCHEDULE

1. Describe the proposed revision (including credible failure modes, if applicable).

The implementing standard for safety standards and requirements identification (SRD Volume II, Appendix A) requires that documentation of the hazard control strategy development process be a narrative. In addition, it requires that the documentation identify all control strategies considered and provide a defensible rationale for selection of the preferred strategy.

It is proposed that the requirement for documentation of the hazard control strategy process to be a narrative is replaced by a requirement to identify the control strategies selected and the linkage of control strategies with hazards in the Standards Identification Process Database (SIPD).

The requirement to identify all control strategies considered and to provide a defensible rationale for selection of all preferred control strategies is clarified to note that, when the appropriate control strategy is self-evident, or where a proven control strategy exists that is appropriate to the hazard, the rationale need only state that fact and not provide a discussion of other, obviously inappropriate, alternatives. In other cases, a formal evaluation of potential alternative control strategies is required, along with the defensible rationale for selection of the preferred strategy. In either case, the rationale will be provided or referenced in SIPD via the Design Basis Event used to develop the strategy.

2. Identify the affected Authorization Basis (AB) documents and perform a comparison and assessment of the revision against the AB.

The affected AB document is SRD Volume II, Appendix A, *Implementing Standard for Safety Standards and Requirements Identification*. The comparison and assessment is provided in Part II, item 1, below.

3. List the references used for the safety evaluation.

None.

4. Describe the planned revision implementation schedule.

The proposal will be implemented within 30 days of approval.

¹ The Safety Evaluation Number shall be obtained from Project Document Control.

Safety Evaluation Number¹: SE-W375-99-00017

Revision No:0

ABCN Number: ABCN-W375-99-00063

Safety Evaluation Subject: Redefinition of Documentation of the Control Strategy Development Process**PART II: REGULATORY IMPACT OF PROPOSED AB REVISION**

The following questions are to be answered as part of the safety evaluation, to determine if the proposed AB revision (and the proposed initiating change if applicable) requires prior RU approval.

- | | <u>YES</u> | <u>NO</u> |
|---|-------------------------------------|--------------------------|
| 1. Does the revision involve the deletion or modification of a standard previously identified or established in the approved SRD? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

JUSTIFICATION:

The revision involves modification of the "Implementing Standard for Safety Standards and Requirements Identification," SRD Vol. II Appendix A.

The SRD, Volume II, Appendix A states:

"Documentation of the hazard control strategy development process shall be a narrative defining the overall approach to control a specific pre-identified hazard. The control strategy should be described in terms of the safety functions required (e.g., limit release of radionuclides, etc.) and in terms of a set of engineered features, administrative controls (procedures and training), and management systems selected for implementing the strategy. The documentation should identify all control strategies considered and provide a defensible rationale for selection of the preferred strategy."

Experience gained through the application of the ISM process has shown that the requirement to provide a narrative description for control strategies developed for each hazard would result in an excessive commitment of resources. The 0004 process itself includes no such requirement. Regulatory Position paper RL/REG-98-17, "Tailoring for Safety," requires that the control strategy development ".. part of the process be clearly documented to indicate selection of the Hazard Control Strategies and to show the linkage of Control Strategies to the respective hazards." This requirement will be met by the SIPD database, which will clearly identify control strategies and show their linkage to the respective hazards.

With regard to the requirement to provide a defensible rationale for the selection of the control strategy, the integrated teams, which include suitably qualified staff from safety, operations and the engineering disciplines, ensure, during the development process, that the control strategies selected are appropriate for their respective hazards. In many cases the correct control strategy is self-evident or a proven control strategy exists that is appropriate to the hazard. For example, to control the hazard due to direct radiation exposure to radioactive feed material, the correct control strategy is to place the material in shielded tanks. It would be a misuse of resources to consider alternatives to this proven solution. In those cases where the correct control strategy cannot be selected by application of informed judgment of the integrated team, it is necessary to carry out and document the control strategy selection process. An example of this is selection of an active and/or passive strategy to control hazards associated with hydrogen accumulation.

- | | | |
|---|-------------------------------------|--------------------------|
| 2. Does the revision result in a reduction in commitment currently described in the AB? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|-------------------------------------|--------------------------|

JUSTIFICATION:

The proposed changes reduce commitments in SRD Vol. II Appendix A to provide a narrative description of the control strategy development process and to always provide a

Safety Evaluation Number¹: SE-W375-99-00017 Revision No: 0

ABCN Number: ABCN-W375-99-00063

Safety Evaluation Subject: Redefinition of Documentation of the Control Strategy Development Process

defensible rationale for the preferred control strategy. YES NO

3. Does the revision result in a reduction in the effectiveness of any program, procedure, or plan described in the AB. ☐ ☒

JUSTIFICATION:

The revision does not involve a change to any program, procedure, or plan described in the AB.

Note: Guidance on defining the terms and responding to the above questions is provided in K70C528, Code of Practice for Managing Changes to the Authorization Basis, Appendix 6.

If all the answers to the above questions are no, then the change can be made without prior RU approval.

If any of the above answers is yes, then RU approval is required prior to implementation of the AB revision (and the initiating change if applicable). An ABAR shall be prepared to obtain RU approval (see K70C528, Appendix 7.)

PART III: SAFETY EVALUATION CONCLUSION

- ☐ All PART II questions are answered No. Therefore, RU approval is NOT required prior to implementing the proposed AB revision (and initiating change where applicable).
- ☒ At least one PART II question is answered Yes. Therefore, RU approval IS required prior to implementing the proposed AB revision (and initiating change where applicable). Issuance of an ABAR is required to obtain RU approval.

<hr/> Evaluator/Originator	<hr/> 23 Nov 99 Date
<hr/> Reviewer ²	<hr/> Date
<hr/> Manager, Safety and Regulatory Programs	<hr/> Date

² The reviewer should be a person from the same department as the Evaluator/Originator and at least as qualified as the Evaluator/Originator to conduct safety evaluations.